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ABSTRACT

A review of the literature is presented on the excellence movement in education and vocational education. The review focuses on the contribution of the educational institution to excellence and describes institutional-level factors associated with excellence. Several questions guide the review: What elements characterize exemplary institutions? What are the common elements? Can these attributes be developed? How do the elements compare to those found in other settings? What implications do the findings have for further study? Several issues are identified: (1) the "unattended" issue (how vocational education was ignored in national reform reports); (2) a model for excellence; (3) outcome factors; (4) institutional variables; (5) organizational structure of the system; (6) personnel qualifications; (7) curriculum development; and (8) program access. In the study of excellence in public education, several topics are identified: (1) structural variables; (2) schools in transition; (3) changes occurring in education; and (4) themes of excellence. Five research concerns and 13 questions for research are listed. Fifty-six references and a 178-item bibliography are included. (NLA)

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INSTITUTIONAL-LEVEL FACTORS AND EXCELLENCE IN VOCATIONAL EDUCATION: A REVIEW OF THE LITERATURE

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INTRODUCTION

This report represents a review of the literature related to the excellence movement in education and vocational education. As a review, it presents a discussion of representative scholarly works toward the development of a theoretical framework for inquiry in excellence in vocational education. Specifically, this review seeks to focus on the contribution of the educational institution to excellence in vocational education and, thus, it describes institutional-level factors associated with excellence.

The review was conducted as part of a larger study which sought to provide a better understanding of exemplary vocational education institutions. Toward this end, the following questions were used to guide the review:

1. Do certain essential elements or attributes characterize institutions identified as exemplary and, if so, what are they?
2. If common elements are found among institutions identified as exemplary, how are these elements reflected in different settings?
3. To what extent are these attributes (if found) amenable to creation and/or development; or, do they appear to result from conditions outside human design?
4. How do the elements (if found) compare to those identified in studies of organizational excellence in other settings? How can one inform the other?
5. What implications do the findings have for program planning and evaluation, for leadership development and support, and for further study?

A focus on the school or institutional level may provide better conceptions of high quality instructional and learning environments, a more sound foundation from which to predict and support significant change and improvement, and an avenue of improvement by linking research in vocational education with other efforts to understand and improve institutional development.

The literature review focused primarily on the fields of vocational-technical education and school reform related to educational excellence and, secondarily, on organizational development. The primary questions initially addressed dealt with the nature of institutional excellence in vocational education and the processes which produce and support such institutional excellence. The most useful outcomes of the literature review

may be more fruitful questions to guide further inquiry and a framework within which that inquiry can proceed. It should be noted that by comparison with the school reform literature, relatively little research exists specifically related to vocational education and excellence. Thus, as a review of the literature, few references are made specifically to vocational education. The attempt is to provide a theoretical framework for institutional excellence in which vocational education exists.

WHAT IS EXCELLENCE IN EDUCATION?

Any discussion of excellence in education should include an effort at achieving some common understanding of the major construct under study. What is excellence? While the construct seems to be one to which many institutions aspire, including educational systems, there is little agreement on what it is. *The American Heritage Dictionary* includes in its definition of *excellence* the terms, "superiority; pre-eminence. . . . Something in which a person or thing excels." It further defines *excel* as, "To be better than; surpass; outdo. . . . To surpass others; to be better than others" (Morris, 1970, p. 456). It is interesting to note that each of these definitions is based on a model of comparison in that one achieves excellence in comparison to others. If everyone in a particular group could attain a level of "excellence," then would none of them be of excellence? While the possibility that all educational institutions would attain the same high levels in a search for excellence is not likely, such a scenario would then render them all "average."

In his book *Achieving Excellence In Our Schools* (1986), James Lewis provides a discussion of what he calls "hallmarks of excellence" for schools. These include the idea that all school people in such an institution help children to become "something more than they ever hoped to be." Schools of excellence welcome new ideas and provide incentives and rewards to their personnel for developing innovations and programs to improve student outcomes. They have administrative leadership which creates an organizational culture and structure in which "the talents of all the school people may flourish." The school boards avoid the details of the daily operations and trust the administrators. Schools of excellence have top administrators who accentuate the positive and convey a sense of future and vision to the community and school personnel. They back their commitments with dollars and

give school people freedom to take risks, question long-standing principles and practices, and try new things. These schools have "the courage to change things even when all is going well, . . . to require its administrators to share power and authority with school people, . . . to stick with its values during difficult times, . . . to rely less on short-term results and more on long-term gain, and the courage to involve all school people at all levels of the organization to improve people and solve problems" (p. xii).

The study of excellence has not been limited to the education profession. American business has had increasing interest in such studies. Additionally, some authors have sought to study examples of excellence in the business community to inform the search for excellence in other institutions.

Peters and Waterman (1982) report on their investigation of excellence in the business sector. They report that

> the excellent companies were, above all, brilliant on the basics. Tools didn't substitute for thinking. Intellect didn't overpower wisdom. Analysis didn't impede action. Rather, these companies worked hard to keep things simple in a complex world. They persisted. They insisted on top quality. They fawned on their customers. They listened to their employees and treated them like adults. They allowed their innovative product and service "champions" long tethers. They allowed some chaos in return for quick action and regular experimentation. (p. 13)

Peters and Waterman further list eight attributes which they believed characterized "most nearly the distinction of the excellent" in American business:

1. A bias for action—these companies promote experimentation and implementation.
2. Being close to the customer—they provide "unparalleled quality, service, and reliability"; they listen to the customer "intently and regularly."
3. Autonomy and entrepreneurship—they foster many leaders and innovators throughout the organization. Autonomy exists on the "shop floor." They don't "hold everyone on so short a rein that he (sic) can't be creative." They encourage practical risk taking, an atmosphere in which mistakes are acceptable, and they support good tries.
4. Productivity through people—these companies respect each individual within the organization.
5. Hands-on, value driven—a philosophy based on human values is prominent and the leadership routinely visits all facilities.
6. Stick to the knitting—they focus on the business interests that they know best how to do.

7. Simple form, lean staff—the structural forms within the organization are simple and the top-level staffs are relatively small.
8. Simultaneous loose-tight properties—while autonomy is given to many different levels, these companies maintain rigid adherence to a few central core values. (pp. 13-15)

Lewis (1986) and Peters and Waterman (1982) are examples of the available popular works which represent the contemporary interest in improving our educational and business institutions. It is with a collective understanding of "excellence," guided by the descriptions of the sources cited above, that this review seeks to build a theoretical framework for understanding excellence as it relates to the institutions providing vocational education.

VOCATIONAL EDUCATION AND A SEARCH FOR EXCELLENCE

> We Americans expect much from our schools. We expect them to capacitate youth with basic skills, transmit the cultural heritage, prepare people for work, assure adequate health habits, instill the essential capacities to participate as a citizen in a democratic society, to become safe drivers, and to deal with issues such as consumerism, sex and marriage, and differing values and attitudes, to name a few. Schools mirror our society. We ask them to fulfill the dual and seemingly contradictory roles of preserving and unifying our society, and at the same time, transforming it. It is not surprising in a pluralistic society, such as ours, that there are different views regarding what the schools are to achieve, how well they are doing, and the appropriateness of their relative emphases and likely future directions. (Taylor in National Commission on Secondary Vocational Education, 1984, p. v)

The American educational system is a dynamic and continually evolving enterprise. Society continually exerts strong influences on the system to meet the demands of society. As noted by Taylor, these influences are often conflicting. Vocational education has long been a part of the American educational system, and thus has faced these issues.

For educators, a period of rapid change presents both threat and opportunity. For some vocational educators, the push for academic basics is interpreted as a threat to the survival of vocational education. For others, the threats take the form of inadequate financing to maintain state-of-the-art technology or industrial-based training.

The problems become more complex when one considers that the population served by vocational education may possess learning styles, abilities, and aspirations which are different than those addressed by the formal educational programs being pursued with increasing vigor by the education reform movement:

> Many states have responded . . . by increasing the number of academic courses required for high school graduation. The assumption is that more academics, which may be the best preparation for college, is also the best preparation for life. This assumption is wrong. (National Commission on Secondary Vocational Education, 1984, p. 1)

As the reform movement pursues educational programs which are designed to increase learning for the most academically talented students, reform is for a narrowing group of learning styles: "A wide variety of educational approaches are needed to accommodate those differences [in students]; no single prescription can be effective for everyone" (Silberman in National Commission on Secondary Vocational Education, 1984).

The challenge for vocational education is to remain a vital part of an evolving educational system. To the extent that it is possible to maintain positive expectations and to create and respond to opportunity, vocational education professionals may help to shape the fields of vocational education. By so doing, they will affect change in general comprehensive education, training for technological production, and lifelong education. Many of the reformers are calling for restructuring of the larger secondary educational enterprise. Vocational education may contribute to this restructuring.

Much of the earlier literature in the contemporary reform movement identified symptoms and recommended cures prior to careful diagnosis. An analysis of the reform literature of the 1980s reveals that it is primarily prescriptive. Further, little study has been focused at considerations within an educational institution beyond the classroom level. Diagnosis may indicate that some of the causes for concern in education are structural and must be addressed before significantly different results can be produced at the classroom level.

For vocational education, dealing with larger structural variables (beyond singular teacher-pupil classroom relationships) may be the key to success as a field. These variables may be at the institutional level and may include consideration of such areas as institutional governance structures, financing, administrative leadership, teacher preparation, and

learner equity. Larger structural variables are those which must be in place for learning in the classroom to occur. However, will they engender classroom excellence? Whether the larger structural variables alone will produce better learning is a matter of question. Are they causal or only precursory factors for excellence in vocational education? In what ways do they support the work of the classroom teacher and/or the collaborative processes among members of the faculty?

What unique contributions will vocational education bring to an evolving educational system? Will the concepts of excellence currently held by the education profession be modified by inputs from vocational educators? Can excellence be clearly identified and measured, or will we recognize the products of excellence as they shape future waves of change?

The "Unattended Issue"

Popular works in the educational reform movement literature of the 1980s either ignored vocational and technical education or dismissed it as a minor consideration in the reform efforts. Authors such as McNett (1984) and Magisos (1984a) called it the "unattended issue." Several reform authors who did address it were less than supportive of the concept. In *The Paideia Proposal*, Adler (1982) considered the concept of vocational education at the secondary level as not viable. Authors such as Sizer (1984) suggested that task-specific approaches to education leave students with outdated skills even before they enter the rapidly changing workplace.

On the other hand, Goodlad (1983) and the National Commission on Excellence in Education (1983) each called for a restructuring of schooling to provide a closer collaboration between schools and the workplace. Within the reform movement, vocational and career education is viewed as important by Silberman (1988) who stated that "vocational education helps students achieve intellectual, social, vocational, and personal goals" (p. 38). Hughes (1984) also expressed similar support.

Only recently have studies been reported which directly address excellence in vocational education. Two of the first educational reform reports which dealt with vocational education articulated the need for it in the secondary schools. These were

Education for Tomorrow's Jobs (National Research Council [NRC], 1983) and the report of the Panel on Secondary School Education for the Changing Workplace (NRC, 1984). *Education for Tomorrow's Jobs* focused on vocational education in comprehensive public high schools. It promoted vocational education as an equal partner with college-preparatory education in the secondary schools.

The report of the Panel on Secondary School Education for the Changing Workplace (NRC, 1984) suggested that the same competencies are needed to prepare a young person for work or for college. It further states that vocational education cannot substitute for a thorough grounding in the fundamental knowledge and basic intellectual competencies needed for learning and advancement. Basic academic competencies are indeed basic and must precede the development of other skills. The report also refers to a study of employers which indicates that employers want employees who are able and willing to learn throughout a working lifetime.

The educational establishment has responded to the reform movements by increasing academic requirements for high school graduation and for college admission (National Commission on Secondary Vocational Education, 1984). These requirements were sometimes seen as a threat to the survival of the vocational technical classes at the secondary level. Silberman (1988) reported findings of an enrollment survey related to vocational education: "The main reasons given for [enrollment] decreases are scheduling difficulties imposed by increased graduation requirements, the general decline in secondary school enrollments, the inability to fulfill academic requirements at the area vo-techs, and the sending schools' unwillingness to release their students" (p. 39).

Vocational education responded to the increased competition for students by focusing on structural diversity, enhanced teacher preparation, patterns of financing, and equal access for all students. The reports of these efforts seem to assume that they will meet identified learner needs, while the question of excellence is not often directly addressed (Copa et al., 1985; National Commission on Secondary Vocational Education, 1984; Phelps & Hughes, 1985).

Phelps and Hughes (1985) suggested that central questions which should be asked in vocational education are those which relate to mission, purpose, and outcomes. While the core concern of the mission is the preparation of the learner for vocation and work,

there is less than consensus about whether this preparation should prepare persons for specific job skills, prepare people for work in general, or both.

According to Phelps and Hughes (1985), the field of secondary vocational education has arrived at a pivotal point in its history. The nature and viability of its future rest on the formulation of responses to several central, philosophical questions. In the introduction to this paper, they cite Copa, who contributed some of his perceptions of vocational education to the authors. He posited some of these questions:

> What is the nature of work in our society today and how do we best prepare individuals to engage in this work? Has the term "vocational" outlived its usefulness or is it especially relevant given the present conditions of work in our society? Does vocational education prepare for second class work or is all work equally meaningful simply because it is done by people? Why isn't vocational education included as a sound element of an academic curriculum? To what extent could all of secondary education be considered vocational education? (p. 2)

These questions, which are presently in the minds of educators and the general public, raise fundamental concerns about the outcomes and public perceptions of secondary vocational education.

As stated earlier, the reform movement literature largely ignored vocational education. If one accepts the premise that education about work is worthy of study in the educational system, then, regardless of whether it should be offered in its present form as vocational education or in another form, vocational education should not remain an "unattended issue" in the educational reform debate.

What Is "Excellence" in Vocational Education?

Miller, Axelrod, and Imel (1984) reviewed the literature on educational excellence with an interest in vocational education. They offered two major observations: (1) the school is the primary unit of study or locale for reform and (2) clear goals for programs are important. They stated that,

> Student achievement in vocational education may well be influenced by the characteristics suggested by effective schools research, such as principal leadership in instructional planning, school wide endorsement of program

> goals, positive school climate, teacher expectations for student performance, and the availability and use of measures of student achievement. (p. 4)

They suggested that improving school effectiveness should be seen as a long-term process that will alter beliefs, relationships, and emphases within the school. This process will be facilitated by building staff commitment, developing high expectations, improving classroom and instructional practices, and monitoring student progress against clearly stated goals.

What, then, comprises excellence in vocational education? Attwood (1984) declared that

> Excellent vocational technical programs are made up of students who are ready to learn, motivated teachers with high morale who are also expert in their technical fields and in teaching methodology, a physical environment that contains up-to-date equipment for simulating on-the-job experiences, and for most programs, a collaborative relationship with industry that makes possible well supervised, industry based educational experiences. (p. 26)

Attwood noted that exemplary programs that contain these elements can be identified around the country and that the successful elements need to be shared and replicated.

Vocational education is criticized by those within as well as outside the profession. Magisos (1984b) cited David's (1983) *Vocational Education in the Comprehensive High School: Assessing the Needs* in suggesting that the main categories of criticism of vocational education include an inadequate collaboration between secondary and postsecondary education, a lack of coordination between modes of providing occupational education and training, a failure in providing for all special needs students, the inability to be responsive, and a lack of integration between the general and academic curriculum (p. 4).

A model for restructuring secondary vocational education in Minnesota has been developed by a Strategy Design Group of the Minnesota Department of Education (MDE) (1988). Their recommendations reflected the belief that the entire secondary education experience must be restructured. They asked for student outcomes to drive education, for a much more integrated holistic approach, and for greater responsibility by each student for his/her own learning:

> Our vision for a restructured model calls for student outcomes to drive education; this plan would mean refocusing and reorganizing the vocational education program within a significantly restructured school environment. Our vision calls for greater "wholeness" and enriched "meaning" for students' learning experiences; this plan would do away with artificial divisions between different areas of school curriculum, between learning in the school and outside the school, between thinking and doing, between enjoying and achieving. Our vision calls for students to assume greater responsibility for their school experience and, in the process, to enhance their ability to determine their future. This plan would strengthen the self-esteem of our young people because they would be valued for their unique talents and perspectives and would be encouraged to grow and develop to their fullest potential. (p. i)

The development of the model was guided by five principle components, all of which relate to the themes identified in this review. Integration is the inclusion of basic and higher-order thinking skills into the curriculum. Articulation provides a nonduplicative transition between secondary and postsecondary programs. Modernization focuses on updating and upgrading curriculum and instructional support. Equity issues must be considered to provide equal access and equitable treatment for all students. Curriculum priorities must be redirected to provide an explicit focus on technical skills, career development, work readiness, preparation for family roles, and technological competence (MDE, 1988, p. iii).

The model reflects a student-centered approach to education rather than focusing on structure or content. Curriculum is to be designed around learner outcomes. The reaching of outcomes by each student becomes the only measure of educational success. It is assumed that all students are able to achieve outcomes and that the educational system has but one purpose—to support the student through the learning process. It seeks an outcome-based design sequence in which exit outcomes initiate and guide all other levels of outcomes in the instructional system: program outcomes, course outcomes, unit outcomes and, ultimately, lesson outcomes. Exit outcomes describe the broad kind of knowledge, competencies, and qualities we want students to be able to demonstrate when they finish high school and face the challenges and opportunities of the adult world.

The Minnesota model presumes the success of all students. The intent is for all students to ultimately be able to demonstrate outcomes successfully. Outcomes, not the calendar, determine credit. The key issue becomes one of reaching the outcomes successfully. At all times, students should know what the goals of their learning

experiences are, what criteria will be used to assess their performance on these goals, and where they stand in relation to each of these goals (rather than to each other). The model seeks to provide expanded opportunities for learning for all students. Working from the assumption that all students are able to achieve the outcomes, appropriate time and instructional support are provided. Teaching should emphasize active modeling, expectation of success, intensive engagement, diagnostic assessment, and frequent feedback to students about their performance. Student mastery replaces curriculum coverage as the focus of teaching and learning (MDE, 1988, p. 13).

Learner-Level and Institutional-Level Variables

Understanding the purpose of vocational education may help in framing the questions necessary for its development within the context of the educational reform movement. Asking what outcomes may be expected of excellent vocational education provides one perspective from which to understand its mission or purpose. Many authors ascribe to the definition of outcomes as used in the school reform literature as synonymous with competencies or skills acquired by learners. While specific factors on the outcome lists vary, most authors center the list around vocational skills such as preparation for career and life roles, work attitudes and habits, and technological literacy.

Several studies (McNett, 1984; National Commission on Secondary Vocational Education, 1984) identified outcomes of vocational education which can be summarized into the following taxonomy:

1. Basic academic skills, including a fundamental knowledge and understanding of American social and economic life, knowledge of basic scientific principles, and basic intellectual capacities such as computational skills, and the ability to read, write, and reason.
2. Personal skills, including interpersonal communication skills, experience with cooperation and conflict resolution in groups, and possession of habits that make for a dependable, responsible, adaptable, and informed worker and citizen.
3. Occupational skills and knowledge, including exposure to a variety of vocations, mastery of basic generic occupational skills, and career development skills which assist with securing first job placement.

4. Lifelong learning, the skill of being willing and able to learn throughout a lifetime.

Copa et al. (1985) extended this taxonomy by suggesting that "the purposes of vocational education are those ends to be attained by students." These authors extended the skill emphasis to center the attention on the individual. They were particularly concerned with the following behaviors performed by the learner which enhance effectiveness in daily life and work:

1. building competence (skill, personal, and contextual competence).
2. applying the basics of knowledge to and from vocational education (mathematics, science, and communication; concrete, abstract, and higher-order thinking).
3. thinking through problems (technical, interpersonal, and interdependent; involves decision making, reasoning, planning, and learning to anticipate and consider consequences).
4. learning technical skills (for everyday living).
5. exploring life roles (searching and scrutiny).
6. learning to work together (cooperative skills are critical to partnerships).
7. expressing self (involvement results in pride which motivates achievement).
8. extending self to community (contribute to well being of school and community).
9. going on stage with life roles (rehearsal for living). (pp. 3 -12)

Some authors suggest that excellent vocational education will include reinforcement of basic academic skills. These basics were defined in *A Nation at Risk* (National Commission on Excellence in Education, 1983) as English, mathematics, science, social studies, and computer science. Other authors identify the development of higher order thinking skills, the contribution to community well-being, or the placement of graduates in jobs as critical outcomes. Many insist that the student be equipped for lifelong learning, that is, with the capacity to manage one's own abilities to make meaning from experiences so that the flow of life experience and information produces a wiser, more competent, more compassionate person. The capacity for lifelong learning is most often cited as the most comprehensive, most basic, and most desired of skills.

The creation of a new view of the importance of vocational education in secondary education was begun by the National Commission on Secondary Vocational Education's (1984) *The Unfinished Agenda*. This report spoke of the diversity of the enterprise, the

diversity of the student body, and the need to provide work-related education as a mainstream component of every young person's education.

The case is made that all students need both a general and a specialized education—a macro issue which must be dealt with at the institutional level. *The Unfinished Agenda* (National Commission on Secondary Vocational Education, 1984) suggests the need for a wide variety of innovative approaches in order to educate all students. Further, it calls for a balance of vocational and academic experiences to prepare all persons for employment in a changing world. It deals with the major issues of quality, equity, relationships, and expectations. Authors of the report assume that the most useful reforms emanate from local schools and classrooms, that education transcends schooling, and that vocational educators must work closely with many others to coordinate activities. Each of these concerns focus beyond the classroom or teacher/learner level. Thus, several of the responses to the reform movement have produced an accelerating drive for quality programs which focus the importance on some larger structural variables in the delivery system.

Institutional-Level Variables

Do larger structural- or institutional-level variables exist which enable a vocational education institution to achieve excellence in accomplishing its mission? Few references in the education literature address the question of whether institutional factors may be of importance. Copa et al. (1985) posited several important variables which relate to the institution. These include the pace of school, the relevance of courses offered for students, the meaning of schooling to learners, and the perceived fairness of schooling practices (p. 13).

An objective of this study is to identify "larger structural variables" related to excellence in vocational education. While a universal definition of larger structural variables may not exist, it is assumed that these variables operate at a level above the classroom level and, thus, may be considered as institutional-level variables. Larger structural variables are seldom identified in the literature. However, their existence is implied. A broad overview of factors presented in the literature may provide a theoretical basis for larger structural variables associated with institutional excellence. A logical grouping of those factors is (1) structural organization, (2) personnel considerations, (3)

curriculum development, (4) institutional resources, (5) collaborative relationships with business, and (6) student access to institutions.

Organizational Structure of the Vocational Education System

Vocational education is delivered in a variety of settings. At the secondary level, it may be housed in comprehensive high schools, specialized vocational high schools, or in regional technical institutes or area vocational centers. In some states, a high school student may enroll in a postsecondary technical institute with credit applied to the high school transcript. Some high school students may be placed as interns through supervised work-study programs. Postsecondary programs may be offered through technical institutes, junior and community colleges, proprietary schools, regional occupational centers, on-the-job training programs, and apprenticeships. In some cases the public technical institute (postsecondary) may be governed by the local district school board (secondary). In other cases, it may be responsible to the state or to businesses through which funding is available.

McNett (1984) noted that the decentralized structure of vocational education, as it currently exists, produces a confusing array of programs and governance. Availability of vocational education programs tends to be limited in rural areas and highly specialized in cities. He said that all vocational programs have difficulty keeping abreast of technological change and the shifting labor market (pp. 33-35). In an era of rapid technological change, the structure of vocational education contributes to the twin difficulties of articulating curriculum between levels and of maintaining quality programs.

The decentralized structure has led legislators to deal with the system by establishing governance and funding patterns which are both enrollment and performance driven. Success of the vocational education system is measured by the number of graduates and/or by the extent to which graduates of a program are employed in a field in which they were trained. Thus, these organizational patterns have resulted in primarily reporting numbers, to the detriment of other measures which might reflect quality of the programs.

Personnel Qualifications

The people who are charged with delivering education are a key to educational effectiveness. Their personal characteristic-related skills, subject-matter knowledge, and knowledge of educational pedagogy are important considerations in staffing decisions. It is the identification and selection of instructional personnel, and the subsequent inservice updating, which are institutional-level concerns. In the institutional process of personnel selection, what considerations must be addressed?

Hughes (1984) wrote that teachers and teaching are fundamental to the improvement of schools. She noted the need for highly interactive teaching with a high degree of student involvement and stated that vocational subjects are especially suited to this. She discussed the classroom as a social unit and the school as an organization, emphasizing the increasing need for teachers to cope with the bureaucracy, which seems to be a hallmark of public education. Hughes' suggestions for improving teacher abilities included the following:

1. building a strong knowledge base in the root disciplines underlying the skill orientation.
2. providing opportunities to develop understanding of students, rooted in personal experience and in the social sciences.
3. upgrading pedagogical skills, with emphasis on higher order cognitive skills.
4. empowering teachers to work with social systems, bureaucracies, and the politics of work.
5. upgrading all vocational teachers to require the minimum of a baccalaureate degree. (pp. 39-40)

She has pointed to the importance of networks of vocational instructors which will enable professions to work together to achieve excellence in the field.

Much of the educational reform literature points to the effectiveness of teaching as a primary variable in student learning. Effective teaching includes the capacities to present the subject matter, to engage students in learning, and to care about students. The time, especially discretionary time, which the teacher spends with students may be an indicator of their personal commitment to individual students.

Another personnel issue is of teacher certification. While most secondary vocational teachers are required to have achieved a baccalaureate degree, postsecondary

teachers are sometimes required only to have demonstrated technical skills acquired in a trade or industry.

The topic of vocational teacher certification was addressed by the authors of *Education for Tomorrow's Jobs* (NRC, 1983). They noted that while high schools must hire university-trained teachers, postsecondary schools can hire persons who have gained occupational training in business. Consequently, the authors of this report recommended that efforts be undertaken to develop special, short, effective curricula aimed at teaching practices, and for changing certification requirements (pp. 75-78).

As a result, faculty in postsecondary schools may need the most help with instructional methods, while secondary school faculty may need to seek industrial experience in order to stay abreast of technical methods and equipment. In-house staff development programs, regular academic inservice coursework, and internships or exchanges with industry are keys to developing and maintaining effective teaching. Opportunities to enhance personal effectiveness and to learn leadership skills and group processes tend to develop staff cohesiveness, to enhance professional status, and to equip faculty at all levels to deal with political and bureaucratic processes.

Curriculum Development

Curriculum is a tool which an "excellent" teacher uses to facilitate learning. Curriculum in vocational education historically has been centered on preparation for specific work roles. Several authors who have addressed the vocational curriculum within the context of the educational reform movement have posited alternative conceptions of the mission of vocational education (as previously noted), and thus what the curriculum might include (see Copa et al., 1985; NRC, 1983, 1984; National Commission of Secondary Vocational Education, 1984; Silberman, 1988). Few of these alternatives have been tested empirically on a large scale over an extended period of time. Some seek the integration of basic skills into vocational curriculum, some suggest pairing of academic teachers with vocational teachers for classroom coordination, while others suggest that vocational curriculum offers the perfect arena in which to reinforce learning begun in academic classes.

The recommendations to improve vocational education are many. Some authors propose that several vocational courses might be used to meet graduation requirements in

academic areas. Some advocate experiential learning as the vehicle for holistic human development; others see experiential learning, well supervised and reflectively processed with the student, as the avenue to the development of higher order thinking skills. Some advocate the introduction of a study of attitudes toward work in the early elementary years; others want such a focus at the later secondary or postsecondary years in order to deepen the quality of training for specific technical careers. Most authors seem to support better articulation between secondary and postsecondary vocational education, the provision of up-to-date laboratory equipment, and the importance of on-site learning through cooperative education or internships in industry.

The need for attention to basic skill development in English, mathematics, science, social studies, and computer science is a recurring theme. The majority of the reports suggest that a good foundation in basic skills is essential for successful participation in today's society and that learning to learn is more important than learning specific technical skills. The study by Crowe, Hettinger, Weber, and Johnson (1986) is an example of the kind of empirical research reported in the current literature. This study analyzed students' basic skills performance in selected instructional delivery systems. The study focused on characteristics of learning environments that promote or retard the development of basic skills proficiency. For example, does the school program affect the acquisition of basic skills (mathematics and reading)? Four types of programs were studied: vocational noncooperative, vocational cooperative, general educators, and college preparatory. Basic skill, attentional, and environmental factors were studied. The study found that the school in which students are enrolled is very critical to basic skills achievement, that consistent relationships exist between programs and basic skills achievement, and that specific classes to which students are assigned, like that noted earlier for schools, is very important to basic skills achievement (pp. xiv-xv).

The Crowe et al. (1986) study posited that vocational programs should

1. increase both the exposure to and the level of reading skills required for vocational students,
2. increase the demand for the level of mathematics skills that vocational students use in completing tasks,
3. increase the vocational students' involvement and intensity with activities requiring the use of data,
4. increase vocational students' opportunities for autonomy, self-direction and feedback, and

5. create a more caring and supportive learning environment to help students perceive vocational education classes more positively. (pp. xv-xvi)

Collaborative Relationships with Business

Effective relationships with businesses tend to strengthen vocational programs. Since collaboration may be the best guarantee that vocational education will stay current with the changing environments and industrial technologies, productive working relationships with business and industry may be essential.

Such collaboration can take many forms, including the use of advisory boards, consultative planning, industrial internships for teachers and students, staff exchanges, participation by business in program evaluation, and provision of state-of-the-art training and equipment by industry.

While most authors affirm the importance of collaboration, others question whether business should exercise their influence by telling the field what to teach. These authors suggest that the content of technical training should be developed by the technical schools, that the primary role of business is to provide employment for well-trained workers, and that industry often has not provided decent jobs for persons with relevant skills. Early principles of vocational education stressed the belief that students learn best when learning experiences simulate actual working conditions and when classroom learning is reinforced by an internship.

Access to Programs for All Students

The questions of access to vocational education are a part of the "unfinished agenda." Which students are primary beneficiaries of vocational education? Are they the students who already do well in an academic setting? Are they low achievers who are "tracked" out of the academic classroom and into vocational programs? Are their backgrounds urban, suburban, or rural? Is vocational education available to all who would elect this type of learning experience? To what extent are the learning experiences which students desire available to them? These questions are evident throughout the literature. McNett (1984) implied that excellence in a vocational education program is inversely related to ease of access to it. He noted that "the better the vocational program, the less likely that disadvantaged students will have access to it" (pp. 34-35). Reasons range from geographic

location to competition for admission. His report recommended the improvement of access to programs through the use of vocational incentive grants to students and the development of individualized programs for each student specifying basic skill objectives and the matching of the particular vocational program through which the objectives could be met.

Vocational Education and the Education System

Vocational education exists within larger contextual considerations. Most secondary and many postsecondary vocational programs function within more comprehensive educational institutions. Those programs which function as autonomous institutions, as well as the comprehensive institutions which house vocational programs, are all a part of the larger educational system. Thus, each vocational program must address issues related to the larger system in which it resides.

How does a vocational institution, or a vocational unit of an educational institution, function within its larger organizational framework? This question illustrates considerations to be addressed on several levels. An example of a consideration within the institution is how vocational staff win the respect and support of fellow academic staff and of school and district administrators. Also, how do those responsible for public relations for vocational education within a community view their programs: as autonomous programs or as integral parts of larger educational systems.

It is important to equip members of a profession with skills to deal with human processes and with political and bureaucratic structures. Among these are communication and relationship skills. These help the teacher to be effective in the classroom, in the building, in the district, and when interacting with legislators. Other necessary skills include processes for planning, decision making, implementing, and evaluating. They are important for putting programs in place and for enhancing the influence of a profession.

Vocational educators also need to lead by example. Educators who perform as effective members of organizations model responsible citizenship in a democratic society. If schools are to spawn leadership, the development of leadership and organizational skills within the teaching profession must be a prime priority.

Vocational educators must become effective at dealing with bureaucratic structures, procedures, and authority patterns, and at understanding the dynamics driving the market for their products—students. Attwood (1984) suggested that organizational dynamics contribute to good teaching. She suggested more teacher involvement in decision making, lively staff development opportunities, and teacher-directed inservice training. Effective leaders work with natural organizational processes to enable people to deal with problems.

EXCELLENCE IN PUBLIC EDUCATION

Insights from the Reform Movement Literature

The educational reform movement has focused primarily on public secondary education. While the literature of educational excellence is abundant, little of it which focuses on the institutional level is based on empirical research about institutions. Literature from the reform movement is essentially prescriptive, advocating a range of cures, some of which are the product of practical wisdom and some of which have developed from a base of research. Wayson, Mitchell, Pinnell, and Landis (1988) questioned whether prescriptions are based on adequate analysis. They suggested that the plethora of prescriptive practices identify solutions to problems before the problems have been well defined. Further, public education is surely complex and multifaceted, too much so to address with simple solutions:

> The basic lesson we learned . . . is that there is no one "best way" to produce quality. . . . We are uneasy about the overload of prescriptive practices that characterizes the Excellence Movement in general. (p. 198)

> The Excellence reformers' basic shortcoming is that they have substituted means for ends. . . . [W]hen the reformers focus all their energy on the means for solving problems before clarifying and getting agreement on what the problems are, then the reform efforts are likely to fail and the problems will continue to fester. . . . The greatest shortcoming of the criticism embodied in the reform reports is that it is too sweeping to apply to a social institution as diverse as the public schools. (pp. 213-214)

What is quite clear from examining this literature is that change is desired, both by the educational community and its writers and by the public and its elected officials.

Proactive change-oriented efforts are in process throughout public secondary education and much of this change is in response to state-level legislative mandates.

Structural Variables

This literature review attempts to investigate the significance of larger structural variables in public secondary education. Does the literature of the school reform movement provide insight to the search for and cultivation of institutional excellence? By improving school structure, can results be enhanced? How are schools which produce excellence organized? What characterizes their operating systems? What characterizes their climate? Do larger structural variables facilitate excellence in the classroom? Do larger structural variables enable the accomplishment of mission?

The following observations can be made regarding larger structural- or institutional-level variables: larger structural variables influence all levels, including the classroom, the school, and the district; funding sources, including community, business and industry, and state and national governments influence institutional structure; and at each of these levels distinctions can be made between organizational structure (the shape of the organization) and social structure (the structure of social and political processes).

Organizational structures, including the placement of people and the flow of power and resources, indicate the shape of the organization. Organizational structures are produced by and reflect the basic nature of the system. One can examine an educational enterprise by placing it on a range between classic bureaucracy and participatory democracy. This dimension of organizational structure affects all aspects of the system, including the degree of formality, the types of controls practiced, the power relationships, and the flow of communications. Some organizational structures may span levels: administrative structures, communication structures, structures for decision making, structures prescribed by policy, structures for reporting and accountability, structures through which administrators collaborate, and/or structures through which resources are distributed. Some organizing structures are specific to a level—as curriculum is specific to a grade or a classroom and curriculum alignment is specific to a school. The physical setting provided by the building, the equipment, and maintenance is specific to each school.

The primary dimension of organizational structure often cited in the literature is the "loosely-coupled" pattern of schools (Weick, 1976). Examples of this include the cultural regularities which promote isolation; the high degree of autonomy which is characteristic of the teaching profession; and the structural looseness, multiple and contested goals, and accessibility to outside pressures (Heckman, 1987).

Social structures are important factors to consider. They indicate the personal and political access patterns by which people within the institution interface with the institution. Social structures also span all levels. They include leadership and management styles, decision processes, and the degree of staff involvement and ownership. The quality of the social structure is heavily influenced by the leadership of the superintendent and building principal and is indicated by qualities of the school climate. Social structures produce group norms and larger goals which are stated in specific objectives. Collaboration and joint problem solving are products of participative social structures. Participative people processes create settings in which control derives from commitment to purpose rather than being externally imposed. Patterns of social and political process allow, give permission for, and produce the shape of the organization. Social structures produce a culture of mutually reinforcing expectations. Raiche (1983) wrote that "Recent research consistently shows that the social structural characteristics of schools are considerably more important to the educational process than are their physical attributes" (p. 90).

Organizational and social structures are dynamic and may be interactive. Each may at times seem to produce the other. The fine line between organizational and social structure may be difficult to distinguish in the world of practice.

Schools in Transition

School reform involves a process of change, which may be prescribed or proactively planned. Change occurs through process and is a phenomenon of the larger organization. Mullaney (1983) wrote about implementing change in educational organizations. She worked from the thesis that "In order to implement or assess planned change efforts, it is essential to take into account the organizational context" (p. 63). Change is always set in the midst of organizational, environmental, and political factors which influence developments in complex ways. Change is dynamic; any innovation tends

to be changed itself in the process of adoption. She suggested three trends which are characteristic of planned change:

1. Planned change has been recognized as an organizational rather than an individual phenomenon.
2. [P]erceptions and meanings of planned change efforts will vary with different actors and groups of actors within an organization.
3. Research suggests that planned change is a dynamic process which is continually being negotiated and redefined in the implementation process. (p. 60)

Change is a dynamic process, which affects and is affected by numerous factors. A planned innovation may be changed in the process of implementation. An innovation may reshape larger structural variables as well as the smaller variables intended for change. Change may impact the values of those initiating the change or the values of those affected by the change, thereby generating conflict. Change efforts have political qualities:

> Innovation attempts evolve incrementally. That is, the change effort is continually undergoing revision and adaptation. To monitor and direct this mutual adaptation, it is necessary to understand the dynamic interface between the change process and the change context. . . . [S]uccessful practitioners [understand] planned change as a complex and dynamic process occurring within a myriad of interrelated contextual factors. (Mullaney, 1983, p. 76)

While change is usually highly desired, the rationale and goals for change may be less clearly conceived. Each author seems to have defined excellence within his/her own framework. What is the product of educational excellence? Often attempts at measuring excellence in an educational program are reduced to measurement of specific learner outcomes, which is then, in turn, reduced to measurement of quantitative scores on standardized tests. Authors who support comprehensive education or holistic human development decry this limited perspective and advocate full developmental learner outcomes and qualitative measures for documentation.

Changes Occurring in Education

The transition of schools from loosely coupled bureaucracies to effective learning environments is among the strongest themes in the literature. Schools are bureaucracies characterized by a hierarchy of authority. Authority has to do with power among people. Are decisions made at the top and handed down, or are they made by those who must implement and live with the results of the decision? Most authors assume this transition to

be toward participatory practices, especially supporting greater professional status for teachers, sharing decision making with school administrators, and enabling teachers to manage their own subject matter and to teach, critique, and guide each other. Mullaney (1983) wrote,

> Schools are bureaucracies . . . characterized by the structural features of specialization, professionalization, and a hierarchy of authority. . . . The means through which the various components of highly complex organizations are coordinated is the hierarchy of authority. . . . Power is a relational phenomenon. . . . [A]uthority is a function of one's position in the hierarchy. (pp. 49-50)

Magnuson-Martinson further suggested,

> [O]rganizational formality has been found to reduce learner in-class participation and independence through teacher modeling of administrative style. . . . [H]igher levels of administrative control resulted in non-reflective and uncritical teaching. . . . [A]uthoritarian administration negatively affected independence and creative cross-fertilization of ideas. . . . [I]nstructional leadership is best interpreted as for "enlightened and humane" leadership rather than impersonal and authoritarian command. (Raiche, 1983, p. 29)

Wayson et al. (1988) found that the top down, controlling, and exclusionary policies and practices that characterize some aspects of the excellence movement are not found in good schools:

> The good schools we saw are not laissez-faire operations, nor are they anarchies. They have order, but the control is neither authoritarian nor hierarchical; it comes from a commitment to purposes that transcend personal convenience or individual aggrandizement. These schools are communities that care for everyone's welfare, that enlist everyone's participation, and that display deep commitment and abiding loyalty. In these schools all participants are learners. (p. 180)

Because schools are loosely coupled bureaucracies, the role of the site administrator in nurturing cohesiveness is strategic:

> [S]chools deviate substantially from the typical bureaucratic organizations we interface with on a daily basis. . . . [T]he loosely-coupled nature of schools is an especially salient consideration when attempting to implement change in educational organizations. . . . [T]he importance of principal as a leader (as opposed to being an administrator whose role and authority derive their meaning from the bureaucratic structure) is closely related to the structural looseness of schools. Thus it becomes the responsibility of the schools to integrate the loosely-coupled components and, in so doing, nurture the school-level cohesiveness that would otherwise tend to be

> absent. . . . Given their complex nature, it is crucial to recognize that educational organizations are systems. [C]hanges in one area will result in changes in other areas. In particular, we consider the power hierarchy, specialization/professionalization, the role of the principal, the loosely-coupled nature of schools, and organizational climate. (Mullaney, 1983, p. 48)

Given this transition toward more participatory processes, it is not surprising that the school effectiveness literature seems to place a great deal more emphasis on the social structure than on the organizational structure. According to Wayson et al. (1988), "The basic lesson we learned . . . is that there is no one 'best way' to produce quality. . . . Only as we understand the processes involved in releasing the talent and creativity of individual school staffs can we expect to achieve excellence in education" (p. 198). The reform literature suggests that a key is empowerment, especially of putting persons in charge of the change which is happening to them.

A parallel theme throughout the literature views the entire educational enterprise from a systems perspective. While organizational structure is one dimension of a system, consideration must also include social structure and dimensions of power, mission or purpose, and resources. All levels of the system affect all other levels. If any part of the system undergoes change, other parts will be affected. Administrative patterns influence classroom patterns; the quality of the learning experience for the individual student affects the workings of district curriculum and program planning. The combinations of organizational structural variables and social structural variables which produce excellence will vary with the needs and unique characteristics of each setting. Mackenzie (1983) reported that, "Schooling is a complex and continuous, multi-faceted process that is always conditioned by the history and circumstances of its evolution . . . no single element of school effectiveness can be considered in isolation from all of the others, or from the total situation in which it is found. . . . What emerges . . . is a 'syndrome' or 'culture' of mutually reinforcing expectations and activities" (p. 8).

Raiche (1983) suggested that learner outcomes (student learning and development) are essentially the products of organizational and people processes. School organizations are seen as systems, comprised of interrelated elements. Students, attitudes, classrooms, parents, policies, teachers, desks, and administrators all contribute in some fashion to the composite "effect" of the school on student achievement. This orientation has produced such concepts as "school climate," "school culture," and "effective leadership" and has

attempted to delineate what these phenomena consist of and how they influence instructional outcomes.

Themes of Excellence

Many other themes exist within the excellence literature, any one of which could provide a focus for a major study. The following are among those which appear with some consistency:

1. The school is considered as the unit of change.
2. A positive climate must be developed.
3. Expectations of excellence are built on values which emphasize and reinforce instructional excellence and high student achievement, including regular and consistent feedback regarding progress.
4. The role of the principal as both administrative and instructional leader is key.
5. The teacher plays a central role in attaining excellence.
6. There must be collaboration and cohesiveness among the teaching staff, including cooperative working relationships and peer coaching in support of staff development.
7. Holistic learner outcomes are considered as important.
8. The importance of engaged learner, including building a sense of efficacy in students, is considered.
9. Excellence includes access to comprehensive education for all students.
10. There is a consistent support and commitment to goals from larger systems, including parents, community, and central administration.

Some effectiveness literature focuses on the school as the unit of change. While change must have the support of central administration, little of what comes from the top down is likely to generate the commitment of staff which is necessary for change to produce stable results. According to Mullaney (1983), evidence suggests that the school or building level is the logical unit of analysis. The building level is also the best focal point for inservice programs to stimulate change. Mullaney cites Heckman: "Each school has its own particular culture in which organizational arrangements, patterns of behavior, and assumptions have come into being in a unique way. . . . The local school is where social, political, and historical forces are translated into practice, and at each school that is likely to

happen in different ways. . . . What is most crucial are the particular structures, behaviors, meanings, and belief systems that have evolved in that school" (p. 66).

Much of the literature of change focuses at school-level characteristics such as climate, a consistent emphasis on basic academic skills, a system for monitoring student achievement, or the instructional leadership exercised by the principal (Rowan, Bossert, & Dwyer, 1983, p. 24). The movement for site-based management derives from the belief that the school is the most effective unit of change.

One indicator of the quality of the system is the climate of the institution. Climate is the product of the interactions of persons within a system as they attempt to accomplish the system's mission. Climate indicates the way persons within the system feel about themselves and their working relationships within that system. Climate reflects the attitudes, beliefs, and norms (social structure) which are foundational to the particular school. Wayson et al. (1988) suggested that "The staff in 'excellent' schools create a positive climate that communicates to students that they are wanted and can succeed" and that staff in excellent schools create ways to involve students in the "life of the school" (p. 162). He noted that a positive climate includes high standards and expectations, a safe and orderly environment, the widespread use of recognition and awards, expectations of student participation and responsibility, cooperation and support between parents and the school, collaborative organization processes, and staff and student cohesiveness.

Climate is a factor not easily quantified and thus may be studied through the use of several methods singularly or in combination. The perceptions of individuals in the organization are often collected and analyzed. This method has been most used in school settings. Systematic field observations such as case studies are used to assess climate. Objective indices such as the size of the workforce, the ratio of salaried to wage employees, the participation of employees in decision making, and the extent of union activity are sometimes used. A less used method is the experimental manipulation of work environment factors such as altering leadership styles.

Values and beliefs are central to human motivation and participation in social systems. The social systems in which people participate are the result of the values and beliefs of those who exercise power within the systems. Any change innovation which becomes stable will be so because the values and beliefs of persons within that system

support or allow the innovation. At its core, change involves change of values and beliefs or meaning structures. All individuals involved in the system hold beliefs which may affect the system. These individuals include students, faculty, staff, administration, and the citizenry which supports the system. Expectations of excellence are built upon values which emphasize and reinforce instructional excellence and high student achievement. These include regular and consistent feedback regarding progress.

In a 1971 study of successful inner city schools, Weber identified a "good atmosphere" as an important factor in producing student achievement. A school with a good atmosphere was described as having an orderly climate, as exhibiting a sense of purpose by staff and students, as being relatively quiet, and as being a place where students felt some sense of pleasure in learning.

Edmonds and Frederickson (1978) found that effective schools have leaders who promote an atmosphere that is orderly without rigidity, quiet without repression, and conducive to the business at hand (education). In a study to identify relationships between school input variables and student achievement, Brookover, Beady, Flood, Schweitzer, & Weisenbaker (1979) identified school climate characteristics as important. Student efficiency, student perceptions of others' expectations and evaluations of them, and the principal's perception of their own and others' perceptions of behavior were characteristics of school climate in the Brookover et al. study.

In a study of effective California schools, Madden et al. (1976) found that an atmosphere conducive to learning was important. This supports a similar finding in a 1974 study by the New York Office of Education Performance Review. In a study by Edmonds (1979) comparing "improving" with "maintaining/declining" schools in New York City, teachers in the "improving" schools reported an orderly school atmosphere as a characteristic of their schools.

Related to the climate within an institution, Brookover et al. (1979) found that the "school social structure" was related to student achievement. Characteristics of a positive social structure include teacher satisfaction, parent involvement, principal involvement in instruction, openness of the school's organization, and the personalization and individualization of instruction. Rutter, Maugham, Mortimore, Oustan, and Smith (1979) reported that schools in which students felt that they could talk to staff about personal

matters had better attendance and higher academic achievement than schools with positive social climate.

In the Rutter et al. (1979) study, reward, including praise, to students was more closely associated with positive student outcomes than was punishment. Further, schools in which a higher proportion of students have school responsibilities produce greater academic success. An atmosphere of reward and responsibility seems to be a part of positive school climate.

High expectations for students appears to be related to the overall climate of effective schools. Weber (1971), Brookover et al. (1979), and Rutter et al. (1979) each report that high teacher expectations for students are positively associated with student achievement. Madden et al. (1976) found a similar overt and observable emphasis on student achievement among effective schools.

A climate of high expectations may be manifested in a number of ways. In a study of eighteen thousand high school students, Harnisch (1985) found that schools which produce higher student achievement scores tend to place greater emphasis on academics, they report fewer discipline problems, their students take a greater number of courses, and their students have a high sense of efficiency. These students feel personally responsible for their success or failure.

The role of the principal or site administrator has been multidimensional and often ill-defined. Each principal would seem to define his/her role as it is performed in a particular setting. Changes occurring within public secondary education have made this role even more important and more subject to change. Two movements in literature are shaping this administrative role: site-based management, which is an administrative approach, and instructional leadership, which is focused at increasing the effectiveness of the classroom teacher. In each approach, the principal is expected to provide and maintain a vision of excellence around which the loyalties and activities of the school will coalesce.

The role of the principal is central in staff planning, in establishing decision processes and the implementation of decisions, in communicating the expectations of the system, and in supporting teachers in their interactions with students. As Mullaney (1983)

pointed out, "The notion of 'clear communications' is fundamental to the literature on good school climate, effective schools, and the leadership role of the principal" (p. 62).

Weber's 1971 study of effective schools identified strong leadership as a key to institutional success. Brookover and Lezotte (1979), who compared "improving" schools with "declining" schools, found that principals in improving schools were assertive instructional leaders who were good disciplinarians, assuming responsibility for evaluating achievement of instructional objectives.

The role of the principal is complex and the influence of the role is pervasive. Mullaney (1983) suggested that an administrator is an individual who uses existing structures and procedures to achieve institutional goals, whereas a leader creates new structures or procedures as necessary to reach these goals. The leadership role of the principal has been linked to school effectiveness, student achievement, and school climate. Edmonds and Frederickson (1978) reported on a study of effective schools which validated the complexity of attributes of effective leaders. Leaders of effective schools promote an atmosphere that is orderly without being rigid, is quiet but not repressive, and is conducive to teaching and learning. They frequently monitor student progress. They set clear goals and objectives for their systems and they require staff to take responsibility for institutional effectiveness. Effective leaders have a plan for resolving achievement problems among students. In general, they were found to have demonstrated strong leadership, management, and instructional skills.

Wellisch et al. (1978) studied leader behavior in schools in which students had made significant gains in academic achievement compared with schools which were less effective in producing achievement gains. Teachers in those effective schools reported that their principals felt very strongly about instructional processes, and they possessed definite views which they strongly promoted. These principals regularly reviewed and discussed teacher performance. They accepted responsibility for institutional decisions regarding instruction such as selecting instructional materials and planning school-level instructional programs. Principals in effective schools provided extensive coordination of instructional programs or delegated that coordination to others.

Mullaney (1983) noted that the principal's authority, which is bureaucratically based, tends to be constrained by the high degree of autonomy which is characteristic of the

teaching profession. This is generally referred to as the "structural looseness" or loose coupling of schools. The organization of school activities, which tends to isolate teachers in individual classrooms, does not provide regular opportunity for teachers to interact with one another and with other staff on a professional basis. In order for a complex, highly specialized organization to be "effective," organizational functions must also be integrated (pp. 51-52).

Perhaps the most important component of successful principalship is the quality of interaction or relationship between the principal and teachers or staff, and between the principal and students. In trying to understand what makes good schools work, Wayson et al. (1988) found that it is the subtle interaction of a principal and staff working together to ensure that every child learns that needs to be examined (p. 84). A study by the New York Office of Education Performance Review (1974) found evidence of positive principal-teacher interaction in a "high achieving school." That study noted that the principal made frequent informal classroom observations. Madden et al. (1976) reported that teachers in more effective schools indicated they received more administrative support than teachers in less effective ones. In Edmonds' 1979 study, which compared "improving" schools with "maintaining/declining" schools, teachers reported they received regular administrative responses to their problems and they experienced effective communication with their principals.

Much of the effectiveness literature identifies the teacher as a primary actor in the educational excellence movement. According to Raiche (1983), "It is very likely that classroom teachers represent the most direct and decisive force in the school setting for determining student outcomes" (p. 91). This role is played out in two directions: (1) in the classroom as the arena for learning, and (2) in interaction with and support of other teachers and support staff. The question raised in this literature review is, how can larger structural variables support excellent instruction by the teacher?

An excellent learning environment begins with a cohesive staff (Lewis, 1986). Cohesiveness develops as people, working together toward commonly accepted goals, discover their common belief structures and their levels of commitment to the common task and to each other. Cooperative working relationships among faculty develop on the same model as cooperative learning patterns for students. Teachers who like each other and are committed to a common cause will choose to learn what they need to know in order to

accomplish what they have chosen to accomplish. Staff development becomes the vehicle, and peer coaching becomes a way to support continued development toward excellence. Teachers need to assume and be granted professional status, that is, status to manage their own subject matter and to teach or train, support, critique, and guide each other. Wayson et al. (1988) described excellent school practices related to teacher status:

> Teachers in excellent schools work together in instruction, in planning curriculum, in solving school problems, and in improving school organization. These cooperative working relationships clearly set these schools apart from the average school. . . . [T]hey involve their staff members more intensively than do most schools . . . staff cohesiveness and continuing attention to problem solving are the most readily identifiable features of good schools. (pp. 159-160)

A 1984 study by the California Assembly Office of Research which looked at seventy-nine schools enrolling "low ability" students concluded that faculty at higher achieving schools "shared a common sense of purpose" which guided curriculum development and influenced classroom and administrative procedures. Teachers in these schools collectively reviewed the curriculum on a regular basis in an effort to expand it to include vocational subjects, art, drama, music, and foreign language instruction. Teachers in effective schools accepted responsibility for instruction and its outcomes. The California study found that these teachers diagnosed student strengths and weaknesses at entry into programs and into new class levels and then used the diagnosis to assign students to programs that targeted those needed skills. Edmonds (1979) reported that teachers in effective schools promoted instructional coordination within grades and schoolwide. They conducted "useful" faculty meetings and interacted on curriculum matters.

Effective schools provide opportunities for inservice teacher education. The Edmonds (1979) study noted that "adequate inservice training" was an attribute of these schools. Stedman (1987) sought to describe "schools in impoverished communities that turned in remarkable performances" in terms of student achievement. He found that in these schools, teachers were strategically assigned with the best teachers. On-the-job training was used extensively.

The outcomes of school effectiveness are invariably identified as "learner outcomes" or "performance abilities of students," that is, an effective school causes a learner to perform. Measurement of performance is often done by teacher prepared tests or

by recognized standardized tests. Many authors call for learner outcomes which are developmentally based and require the full capacities of the person. Raiche (1983) wrote,

> [Effective] schools should promote some degree of achievement in each of the following broad areas: (a) basic skills, (b) higher order thinking and reasoning, (c) psychological development, (d) development of social skills, [and] (e) vocational preparation. (p. 92)

It seems obvious that learning is done by the student. Notwithstanding the work on learning styles, personality types, and developmental determinants of learning, minimal attention has been paid to the student as an active learner. According to McNett (1984), "One group the [excellence] reports . . . rarely try to court, or even to understand, is the students" (p. 39). Few ask students to indicate what would enhance learning or to indicate factors influencing their choices in classes or life direction. With the changing nature of schools and education is a change in the role of the student. The former passive recipient of knowledge is becoming an active and effective agent who both asks the questions around which learning occurs and shapes the content of knowledge through the learning process. In the earlier reform literature, the student is seen as the object of instruction, a sort of "tabula rosa." If the excellent school provides the magic set of stimuli and reinforcers, the student will produce the desired test results. These models of education are built on the scientific paradigm which assumes cause and effect, that is, the behaviors of the teacher cause student learning. Teacher centered instruction produces student achievement. Others describe an implicit "factory model" in which test scores are produced by the educational assembly line. All students *will* learn!

More recent interest is shown in the "active learner," the student who "chooses to learn," the student who "loves learning," or the student who "invests self" in the learning enterprise. Stedman's (1987) report of research in "remarkable schools" found that giving students direct responsibility for day-to-day school activities was associated with school effectiveness.

"Student efficacy" (Harnisch, 1985) is a concept describing the student as having the power to produce effects—the active, operative, impressive student. This student is the focus of interest in teacher-learner interactions, and profits from a learning environment in which self-management is expected and every student is responsible for his/her own learning processes. The student with efficacy develops skills to manage his/her own

learning across the life span. Some writers have advocated a new paradigm of youth. They hold the perspective that youth are our most valuable resource and are seen as important contributing members of society. This perspective is based on the assumption that learning and behavior derive from the freely chosen decision of the learner (rather than being caused by forces external to the learner).

Achievement outcomes are actually the result of learner decisions. Self-control affects the nature of those decisions. Learners lacking in perceived control are less able to accurately evaluate themselves and, therefore, are less likely to make effective decisions (Magnuson-Martinson with Barner in Raiche, 1983, p. 38).

Newmann (1989) suggested a conceptual model for student engagement. In this approach, the student is central in the redesign of vocational education. The emphasis on instruction and teaching may refocus into an emphasis on learning. The objective approach to the instructional process used in vocational education may be brightened by attention to the individual student as learner, the cultivation of a passion for learning, and with some passion for the nurture of a committed community of learning.

Another issue in education today relates to access. Issues of access are raised around the practice of tracking or ability grouping (Oakes, 1986; Plihal, Ernst, & Scholl, 1987). Wayson et al. (1988) support this by stating, "[T]he central issue in education today is reaffirming the social contract that guarantees every child a comprehensive education, which will enable him or her to achieve personal fulfillment and to contribute to a productive and peaceful society" (pp. 213-214).

Strong parental commitment to educational goals helps assure that students have support for the continuing effort necessary to learning. Many patterns are evolving for involving parents in the education of their children: parent-teacher conferences, daily monitoring of student progress with daily reports to parents, volunteer aides in the classroom, special events and celebrations which bring parents into the school, the use of parents as resource persons for special units of study, and parents who serve on advisory committees. The support of the community is equally important and is generated through the release of information, involving influential residents in the planning of school program or curriculum, surveys, district-wide newsletters, and the like. The New York Office of Education Performance Review (1974) study provided evidence for the conclusion that

open communication among parents, the community, and the schools is associated with high achieving schools. Stedman (1987) validated that finding.

Effective schools were found to possess particularly unique curriculum-related attributes. One might summarize those attributes by saying that these schools paid great attention to detail in the processes of educating students. A study by the California Assembly Office of Research (1984) noted that effective schools diagnosed student problems early and assigned them to programs to strengthen needed skills. Weber (1971) found that good schools individualized or modified assignments (curriculum) to meet student needs and then paid careful attention to student progress through frequent evaluation. Edmonds and Frederickson (1978) also found that effective schools frequently monitor student progress.

Schools which are effective emphasize basic academic skills such as reading and math (Madden et al., 1976; Weber, 1971), and they have plans for resolving achievement problems in these skills (Edmonds and Frederickson, 1978). In general, effective schools are aware that achievement is associated with the portion of time devoted to teaching and learning—that is, time on task (Rutter et al., 1979).

An additional factor which has been acknowledged for three decades as being related to student achievement is the socioeconomic status (SES) of the students. While this factor may be beyond the control of building-level administrative decision, it is nonetheless a building-level factor associated with student outcomes. The 1985 study by Harnisch substantiates the finding that high SES students tend to obtain higher test scores. Brookover et al. (1979) concluded that student SES was related to student self-concept, perception of their academic ability, and their self-reliance. These are in addition to academic achievement.

Mackenzie (1983) developed a typology for dimensions of effective schooling, "a culture of mutually reinforcing expectations and activities." He suggested primary clusters of variables which produce effective schooling: leadership, efficacy, and efficiency. These clusters should be viewed in totality as one aspect of the dynamic enterprise called school. He went on to state that "Schooling is a complex and continuous, multi-faceted process that is always conditioned by the history and circumstances of its evolution. . . . [N]o single

element of school effectiveness can be considered in isolation from all the others, or from the total situation in which it is found" (p. 8).

Wayson et al. (1988) list some of the common characteristics found to be exhibited by good schools:

1. They are not rigid; they are flexible and relaxed.
2. They are not punitive; they accentuate the positive.
3. They are not elitist; they welcome and encourage all students.
4. They do not have a narrow curriculum limited to the basics; they offer a varied curriculum that is flexible and adapted to students' needs.
5. They are not test-driven; their students do achieve well because they teach higher-order thinking processes.
6. They do not rely on packaged programs; they do rely on their staffs' commitment and creativity.
7. They do not have authoritarian principals; rather, they have principals who have a vision of what the school should be and the determination to accomplish that mission.
8. They recruit and keep staff members on the basis of merit and have procedures for removing those who do not contribute to the school's mission.
9. They have intensive staff development.
10. They know what they are trying to accomplish and have ways for assessing how well they are doing and for correcting any shortcomings they detect.
11. They believe in themselves and their students and hold themselves responsible for instructing all children.
12. They put student welfare above all other concerns.
13. They have structures that foster decision making and problem solving by staff members as groups, not as individuals.
14. They have a "cheerleader" who generates staff enthusiasm and participation and who solicits support from outsiders.
15. They celebrate their successes and give recognition to staff and students for their achievements. (pp. 203-204)

Wayson et al. (1988) suggest that a school cannot be effective if any of the following guidelines are ignored:

Guideline 1. At every level of policy making in the system, a vision of excellence must be communicated and accepted throughout the system.

Guideline 2. Programs to foster excellence in education should focus on the individual school building.

Guideline 3. Given the political realities of American public school systems, it is essential that someone in line authority is a strong supporter of the programs to develop excellent schools.

Guideline 4.	School system policies and practices on personnel, curriculum, and resource allocation must support programs at the building level if excellence is expected.
Guideline 5.	Policy decisions at the central office level may specify the ends or outcomes, but the means should be left to those closest to the students.
Guideline 6.	Any efforts to standardize practices must be examined carefully to determine their effect on program success.
Guideline 7.	Most schools already have the resources they need to produce excellence if they use communication and problem solving processes that take advantage of those resources.
Guideline 8.	In good schools the staff, students, and parents share a vision of excellence; and they make that vision a reality in their everyday encounters.
Guideline 9.	Almost without exception, excellent schools are led by principals with a vision of what an excellent school should be and with the ability to communicate that vision and to enlist the support of their staffs in carrying out that vision.
Guideline 10.	The staff of a school engaged in the pursuit of excellence must believe that they and their students are capable of excellence.
Guideline 11.	Evaluation criteria used for assessing programs must be directly related to the outcomes sought.
Guideline 12.	Some of what students learn in school can be measured by achievement tests, but such kinds of assessment are not enough to save them or the nation from risk.
Guideline 13.	Standards must not be confused with expectations.
Guideline 14.	If achievement scores or other measures of excellence are to improve, the lower quartile of students must be helped to achieve at higher levels.
Guideline 15.	The teacher must be given a central role in the planning and decision making involved in all facets of the school's operation.
Guideline 16.	School staffs must be organized in ways that facilitate problem solving and foster practices that result in excellence. . . . Good schools confer respect by having faith in their teachers' professional competency, and their administrators know that sharing decision-making responsibilities builds allegiance to the school's program.
Guideline 17.	Staff in schools that pursue excellence must reject the excuses commonly given for why students fail to learn.
Guideline 18.	Every school building that pursues excellence must become a teacher training institution.
Guideline 19.	Staff who undertake new programs in the pursuit of excellence must be able to communicate to parents, other community members, fellow teachers, and administrators about what they are doing and why they are doing it.
Guideline 20.	A staff that wants its program to continue must work actively to build a constituency in the school, the school system, and in the community.

Guideline 21. Nearly all schools that achieve excellence have a "cheerleader" who conveys enthusiasm and commitment and enlists support and participation from staff and others.

Guideline 22. Good schools are based on established norms, which require at least minimal levels of stability in the school.

Guideline 23. Every effort must be made to reduce depersonalization of staff and students in schools, particularly for traditionally neglected students. (pp. 204-212)

Factors Contributing to School Effectiveness

What factors are purported to contribute to school effectiveness? The following represent several overview articles from the excellence literature. These factors, thought to contribute to school effectiveness, appeared widely and indicate the range of influences thought to effect educational excellence.

At the district level, several factors are identified. Each of these may be considered as an institutional-level or larger structural variable:

1. the vision of the head administrator or superintendent and the cohesiveness of central administrative staff;
2. support for school improvement, within the contexts of community cultural, political, and resource considerations;
3. support of the school board or governing body for the administration of the institution;
4. a political climate which is supportive;
5. and the history of the institution within the community.

At the school or building level, the following factors were identified from the literature:

1. the attributes of the principal or building-level administrator as administrative and instructional leader, and his/her commitment to excellence;
2. a shared vision of excellence by principal, teachers, students, and parents;
3. a commitment to a total learning environment, with high shared expectations;
4. the principal and staff work together to ensure that every child learns according to their individual abilities;

5. high and uniform standards for academic achievement which result in positive expectations;
6. positive support and encouragement for productive behavior is exhibited by all staff members;
7. schoolwide emphasis on basic academic skills and higher-order thinking skills; visible rewards for academic excellence and growth and public recognition of success;
8. commitment to learning is manifested in every classroom;
9. positive climate and overall atmosphere often exhibited as school pride held by all;
10. culture of mutually reinforcing expectations, including a climate which supports goals and an orderly, disciplined environment;
11. student welfare and attention to maximized learning is the primary concern;
12. school policies that reinforce authority of teachers and support strong classrooms;
13. staff development, including inservice training for effective teaching and peer coaching or mentoring;
14. comprehensive planning for instructional improvement with coordination for implementation;
15. shared consensus on educational values;
16. long-range goals with short-range measurable objectives;
17. goal-focused activities toward clear, attainable, and relevant objectives and progress toward goals is assessed in relation to outcomes sought;
18. total staff involvement with school improvement, including a central role for teachers in planning and decision making;
19. control emanates from a commitment to shared purposes;
20. the organization facilitates problem solving, and the problem solving is by staff members as groups; the processes release talent and creativity of staff;
21. staff cohesiveness and continued attention to problem solving;
22. schoolwide patterns of communication which create cooperative/collaborative working relationships among teachers;
23. there is stability and continuity of key staff;
24. involvement and support of parents; parental commitment to goals;
25. special efforts on behalf of students with special needs;
26. the resources for curriculum and personnel are at the building level; and
27. efforts toward excellence are communicated within the school and to the community.

Summary of Excellence in Public Education

In what ways do larger structural variables facilitate excellence in education? Larger structural variables are not often mentioned in the literature of educational excellence. In no case during the course of this review was evidence found which indicated that larger structural variables per se were directly productive of educational excellence or learner outcomes. This lack of evidence may be indicative of a lack of empirical study into the larger contextual question of the institutional contribution to excellence in education. Regardless, one might assume that while not sufficient in and of themselves to produce excellence, these institutional-level variables affect excellence by performing a precursory or foundational role which allows for other excellence variables such as those associated with teaching and learning to exhibit themselves. Larger structural variables influence education by supporting or retarding activities of the teacher. The effect of larger structural variables may be limited to supporting or hindering the activities of teaching-learning in which the teacher and learner are involved.

ORGANIZATIONAL DEVELOPMENT: IMPLICATIONS FOR EDUCATION

In its search for excellence, the educational community may consider participatory patterns of managing its systems. Educational institutions are organizations of people who collectively produce a product—the educated individual. As a field of research, organizational development may offer an approach to improving the educational organization through study of such concepts as participatory management and leadership.

Organizational development is the process of helping a group of persons identify current issues within their organization, their essential mission, their goals in order to accomplish the mission, the skills needed in order to attain the goals, and a plan of action. The process functions to empower persons are essentially political, and are likely to produce stable results since members of the organization feel a part of the process. Thus, through a sense of ownership, organizational development is likely to shape norms and values as well as programs.

As American business has sought to become more competitive, there has been increased interest in organizational development within the private business sector. A unique feature of organizational development is that it represents planned change. The educational reform movement included the revisiting of such approaches in exploring alternatives to educational design and management.

The application of the term "revisit" as applied here to education's consideration of organizational development should be noted. While the term "organizational development" is a recent addition to the literature, a careful and philosophical examination of the characteristics of the field seems to indicate that the concept itself predates its use by the business world. Historically, the educational research and philosophical literature is replete with references to educator and community involvement in the planning process at all levels. In contrast, an historical review of industrial literature reveals a "top down" management style in American business. It would appear that over the past decades, education has moved away from this approach while the business community has moved toward it. Regardless of whether organizational development as a theory defines anything new, there are many recent innovations within the field which may have merit for educational reform.

Organizational development approaches have been used in the public secondary school system with some early success. These methods are being modified by educational reform and some show promise. It seems especially useful to vocational education because organizational development concepts were developed for use in the business community, which has traditionally had strong links with vocational education.

Organizational development uses processes to equip employees with the skills to manage their own problem solving, thereby enabling them to plan and manage change and to achieve excellence in their own settings. These skills deal with data gathering and analysis, planning and cooperative goal setting, role clarification, communication, decision making, conflict management, feedback and evaluation, and reward or celebration. Organizational development focuses on patterns of human relationships in order to enable persons to identify and accomplish shared goals (tasks). The end products of organizational development are understood to be the development of skills, norms, and values which produce both team process and organizational culture.

Burke (1982) described organizational development as, "a process of change in an organization's culture via the application of behavioral science knowledge" (p. 2). He suggested that the fundamental questions of how problems are solved, how decisions are made, and how people are treated in the organization are the domain of organizational development. The methodological model for organizational development is action research. According to Burke, for change in an organization to be "development" it must (1) respond to an actual and perceived need on the part of the client, (2) involve the client in the planning and implementation of the change, and (3) lead to change in the organization's culture. These dimensions of culture include standards or rules of conduct, authority structure and use of power, values unique to the organization, rewards, and communication patterns.

For an organization to develop, change must occur. The resultant change should more fully integrate individual needs with organizational goals; will lead to greater organizational effectiveness through better utilization of resources, especially human resources; and will provide more involvement of organization members in the decisions that directly affect them and their working conditions. Organizational development is a systems approach to change. The organization is a sociotechnical system because it is composed of people who interact around a task and because it has a technology. The values that underlie organizational development include humanistic and collaborative approaches to changing organizational life. An effort at decentralizing power is also included in organizational development (Burke, 1982, pp. 10-12).

Ten prominent theorists best represent the field of organizational development. These theorists can be grouped into three separate aggregates based upon their approaches to change: (1) the individual approach to change, Maslow and Herzberg; expectancy, Vroom and Lawler; job satisfaction, Hackman and Oldham, and Skinner; (2) the group approach to change, Lewin, Argyris, and Bion; and (3) the total system approach to change, Likert, Lawrence, and Lorsch, and Levinson (Burke, 1982, p. 23).

Kurt Lewin (1951) is a leading theorist whose influence is pervasive in the field. Adherence to Lewinian theory involves viewing the organization as a social system, with many and varied subsystems, primarily groups. One can look at the behavior of people in the organization in terms of (1) whether their needs are consistent with the organization's directions, (2) the norms to which people conform and the degree of conformity, (3) how

power is exercised, and (4) the decision-making process (involvement leading to commitment). From this perspective, organizational development is the attempt to improve an organization with methods that involve people and to create conditions whereby the talents of these people are used more effectively.

The change process is concerned with providing people with choices, so that their feelings of freedom will not be unduly curtailed and, thus, their resistance to change will be minimized. It is important to involve people at some level of participatory decision-making and communication regarding the direction of organizational change, so that commitment to change implementation will be enhanced.

Burke (1982) noted that it is impossible, at least for the present, to prove that better treatment of people and more involvement of people in decisions that directly affect them will cause higher productivity and morale. However, organizational development practitioners share a set of normative goals based on the following social philosophy and values:

1. Improvement in interpersonal competence.
2. A shift in values so that human factors and feelings become legitimate.
3. Increased understanding between and within working groups so that tensions will be reduced.
4. Development of more effective team management.
5. Development of improved methods of conflict resolution.
6. Development of organic as opposed to mechanical systems.

Bennis (1969) concluded that the basic value underlying organizational development is choice. He also stated that "Organization development practitioners rely exclusively on two sources of influence: truth and love. Somehow the hope prevails that man is reasonable and caring, and that valid data coupled with an environment of trust (and love) will bring about desired change" (p. 370).

How is organizational development applied to schools? Fullan, Miles, and Taylor (1980) stated,

> Organization Development (OD) is a change strategy for organizational self development and renewal . . . a burgeoning research literature with many more examples of the use of OD in education than we had anticipated,

> although obvious coherence was not its strong suit . . . the most well known, comprehensive, and well documented one being the work of Schmuck, Runkel and colleagues at Oregon. (p.121)

Fullan et al.'s review is organized around four categories: (1) the value, themes, and goals of organizational development; (2) the operating characteristics of organizational development; (3) the outcomes of organizational development; and (4) the future of organizational development relative to schools. The key words which define organizational development include planned change; long range; organizational improvement in problem solving, communication, collaboration, participation, trust, and uncovering and confronting conflict; a focus on human processes and technostructural factors in order to improve both task accomplishment and the quality of life of individuals; assistance of a change agent or catalyst; and use of behavioral science techniques to gather valid data in a reflexive, self-analytic fashion (p. 125).

The two main values of organizational development are the desire to "humanize" organizations and to improve the "effectiveness" of organizations (Fullan et al., 1980, p. 132). Organizational development in school districts may be a coherent, systematically planned, sustained effort at system self-study and improvement, focusing explicitly on change in formal and informal procedures, processes, norms, or structures, using behavioral science concepts. The goals of organizational development include improving the quality of life of individuals as well as organizational functioning and performance with a direct or indirect focus on educational issues (p. 135).

How can organizational development operate within schools? Schmuck and Runkel (1985) suggested that organizational readiness is a precondition of productive organizational development. This readiness includes open communication and collaboration, administrative support, goal clarity, and the absence of a negative history of innovation. Strong support from central administrators is necessary, as well as the principal's commitment, support, and involvement at the district level and the site or building level. Also essential is the need to focus on subsystems and to provide adequate time for participation in decisions by all subsystem members.

Scheinfeld (in Fullan et al., 1980) suggested an issues-oriented approach to applying organizational development in education with three primary levels of intervention: the classroom, the organizational climate of the school, and school-community relations (p.

141). Conditions which enabled the initiation of organizational development were most frequently associated with top management support, commitment, and initiative; funding availability; the existence of organizational problems; and the stimulation of inside change agents. Problems dealt with most frequently in early phases were those involving organizational task issues and, secondarily, socioemotional and "output issues" (p. 143). Scheinfeld stated that effective organizational and teacher development depends on three organizational climate factors: the quality of working relationships among teachers (e.g., collaboration, trust), participation by teachers in decision making, and the relationship between principal and teachers. This may be the key relationship in the overall climate of the school. He confirmed the importance of the role of central administration in supporting the project, the active role of the principal, and the multiplier effect of the training of insiders to function as internal trainers of others (p. 146).

Other themes included in operating characteristics are the importance of a clear, coherent program vision, accompanied by careful front end planning; the importance of a close working partnership between a sophisticated inside change agent and the top manager of the district; the idea that the organizational development program is not an "add on," but a "way of life" in the district; and the "multiplier" effects achieved by outsiders' steady attention to the training of internal trainers.

Outcomes of organizational development range from the effects on human processes in organizations, to member attitudes and satisfaction, to organizational performance and productivity. Organizational development methods can increase a school's spontaneous production of innovative social structures to meet internal and external challenges, improve the relationship between teachers and students, improve the responsiveness and creativity of staff, heighten the influence of the principal without reducing the influence of the staff, expand the participation of teachers and students in the management of the school, and alter attitudes and other morale factors toward more harmonious and supportive expectations. More effective collaboration among teachers, increased participation in curriculum planning, and, in some cases, "spill-over" effects on the relations between teachers and students are also outcomes.

Schmuck and Runkel (1985) have claimed that the rate of success of implementing organizational development in schools is noteworthy. Successful outcomes include greater skills in planning, decision making, and problem solving; norms of greater openness; and

increased student perception of a positive classroom climate. Organizational development programs were associated with an increased rate of educational change (i.e., adoption of instructional innovations) in schools. They note that the improved organizational health in schools seems to generate increased innovativeness (p. 164).

The future of organizational development in schools has both negative and positive considerations. Negative factors contributing to a potential lack of success of organizational development in schools include

1. The lack of a real theory of organizational development.
2. Unclear goals and the lack of a coherent and comprehensive conception of just what constitutes organizational development.
3. Fundamental dilemmas and discrepancies among the values and assumptions of organizational development, and between espoused values, actual practices, and their consequences.
4. Superficial and partial uses of organizational development.
5. Using organizational development without proper diagnosis, entry, start-up procedures, timeframes, and other necessary operating characteristics.
6. Lack of attention to organizational development research and evaluation and failure to substantiate some claims.
7. Limited documented diffusion of organizational development programs and results. The predominance of diffuse organizational development practice with limited or unknown rigor and limited exchange of information about the experience of organizational development.

However, a positive future can be envisioned. Authentic organizational development consists of planned change programs which are coherent, systematic, long-range, and reflectively oriented. Such organizational development programs are directed at the improvement of both organizational performance and the quality of life of individuals and groups within the organization. They focus on human processes, technostructural factors, and tasks in the organization using behavioral science concepts and methods, usually with the assistance of internal and external change agents, and with the emphasis on the transfer and development of the capabilities of internal change agents and other organizational members. Balanced and equal attention to all factors is essential, as is the actual implementation of espoused values (Schmuck and Runkel, 1985).

One of the underlying themes evident is that the values and the conceptual bases which underlie organizational development are far more important than its technology and techniques. A change effort should be called organizational development when it is reflective, sustained, coherent, organization-focused, catalyst-aided, science-using, and oriented to both system and individual improvement.

Fullan et al. (1980) concluded that organizational development is a useful strategy for school improvement. It has significance as a change strategy, a strategy which will, if its own reflective, self-evaluative character is maintained, become increasingly well adapted to the task of improving schools.

Raia and Margulies (1985) proposed that organizational development in the United States is becoming important in addressing the quality of working life (QWL). Many of the recent books in the field reflect a systems perspective, sociotechnical analyses, and/or QWL approaches. The sociotechnical systems approach offers a new paradigm and the QWL reflects a social movement (p. 249). Some authors see a basic conflict between the humanistic values of organizational development and organizational values that stress efficiency, productivity, and the "bottom line."

The major categories of core skills in organizational development include general consultation skills such as organizational diagnosis, process consultation, and the design and execution of intervention strategies. Additionally, many of the core skills revolve around a basic knowledge of organizational behavior, including organizational theory, group dynamics, organizational design, communication theories, and other like subjects. There is also considerable emphasis on the development of interpersonal skills as a basis for effective consultation with clients. Two of the most critical skills are individual development, specifically in conceptual and analytical ability, and the ability to theorize and build models that are experience based (Raia and Margulies, 1985). The most critical need seems to be the improvement of the overall education of organizational development professionals.

Raia and Margulies (1985) noted that practitioners in the field of organizational development are likely to increase their awareness of and interest in the dynamics of power and organizational politics and the impact of these dimensions of organizational development on the processes of organizational change and development. There is a

growing perspective that organizational development is, in fact, a political process in and of itself. There is a renewed interest in organizational culture as an important facet of the field of organizational behavior and as an important ingredient in understanding the processes of organizational change. Culture has recently become the target of change itself:

> [W]e see a clear need for a redefinition and expansion of the role of OD practitioners. . . . [T]he function of conceptual therapist [provides a framework not previously applied to a given situation]. . . . [O]rganization development can be thought of as a power-equalization process. . . . [C]hange often requires the redistribution of organizational power. . . . [The OD professional] uses power and influence to facilitate the redistribution of organizational power to the ultimate benefit of the organizational system and its members. (p. 269)

Schmuck and Runkel (1985) wrote that, "OD [in schools] has become commonplace in recent work on staff development, effective schools, teamwork in middle schools, and citizens advisory boards. . . . [I]t concerns team building, clarifying communication, group problem solving, and collaborative decision-making" (p. xi). They quote Fullan et al. as saying,

> Organizational development (OD) in school districts is a coherent, systematically planned, sustained effort at system self-study and improvement, focusing explicitly on change in formal and informal procedures, processes, norms, or structures, and using concepts of behavioral science. The goals of OD are to improve organizational functioning and performance. OD in schools has a direct focus on educational issues. (p. 4)

An important underlying assumption for organizational development in educational reform is that schools consist of behavioral and programmatic regularities that do not depend for their existence primarily on particular personalities. Educational innovations require changes in the "culture" of the school. Schmuck and Runkel (1985) make six assumptions:

1. Groups differ from a sum of individuals.
2. Change occurs through subsystems.
3. Members' goals and motives have relevance.
4. Members' feelings have relevance.
5. Untapped resources have relevance.
6. Change comes from within. (pp. 6-7)

The long-range goal of organizational development is to transmit necessary knowledge and skills to the group members themselves. Group members then become

self-renewing and possess adaptability. Thus, a chief goal for organizational development in an educational setting is that the school achieve a sustained capacity for solving its own problems. To accomplish this, schools must be able to clarify communication, establish clear goals, uncover and resolve conflicts and problems in groups, make clear decisions that capture commitment, and self-consciously assess the directions the work is taking. These represent more democratic social structures and more humanized interpersonal relationships. According to Schmuck and Runkel (1985), three fundamental strategies of organizational development are consultative assistance, content consultation, and process consultation (p. 12).

To change norms, roles, structures, and procedures so that a school can become self-renewing, the organizational development facilitator keeps three goals in mind: (1) organizational adaptability, (2) individual motive satisfaction, and (3) effective subsystems. The ultimate goal of developing an organization is to bring it a sustained capacity to solve its own problems. This quality is called organizational adaptability and is composed of four metaskills: the ability to diagnose the functioning of groups in the school, to gather information and other resources from within and outside the schools, to mobilize synergistic action in the school, and to monitor the other three metaskills (Schmuck & Runkel, 1985, p. 20).

Schmuck and Runkel (1985) have listed seven highly interdependent capabilities of an effective subsystem:

1. Clarifying communication.
2. Improving group procedures in meetings.
3. Establishing goals.
4. Uncovering and working with conflict.
5. Solving problems.
6. Making decisions.
7. Assessing changes. (pp. 23-24)

A developing system—whether a group, individual, or organization—is one that is engaged continually in problem solving. A problem is any discrepancy between an actual state of affairs (a situation) and some ideal state to be achieved (the target) (p. 34).

NEW DIRECTIONS IN THE EXCELLENCE LITERATURE

In *The Ecology of School Renewal*, Goodlad (1987) replaced the concern for structure, implicit in his earlier work *A Place Called School* (1983), with an ecosystem perspective. The individual school is the autonomous locus of change, maintaining its unique integrity. Long-term change occurs primarily through changing culture, which is produced by the changing norms and values of changing persons. The "school" is supported, resourced, and guided by the larger ecosystem in which it is set, including the district, the community, the state, and the nation.

Goodlad (1987) addressed the questions of structure, process, and agendas for reform in the era of change and affirms the strategic importance of mission. He began by replacing the "familiar paradigm of someone in higher authority exercising the power of that position in seeking to control the behavior of persons perceived to have less authority" (p. 3) with an alternative paradigm in which

> One-way directives are replaced by multiple interactions; leadership by authority is replaced by leadership by knowledge; following rules and regulations is replaced by providing more room for decision making; mandated behavior is replaced by inquiring behavior; accountability is replaced by high expectations, responsibility, and a level of trust that includes freedom to make mistakes; and much more. (p. 4)

The goal of the new paradigm is to empower teachers and principals to create the best possible school settings. Goodlad (1987) berated the rising tide of test scores and suggested that achievement tests reveal little about the quality of education (p. 9). He cited the school as the unit for change and suggests a unifying theme for reform efforts:

> The most dependable assurance that children and youth are maximally involved in learning is a renewing school—one in which all those associated with it and, above all, its principal and teachers, are continually engaged in the process of critically examining and improving the health of their school's culture. (p. 13)

In Goodlad's (1987) ecological perspective, "schooling is best understood and acted upon as a cultural ecosystem" (p. 41). School culture is at the heart of all educational improvement, and a healthy culture indicates a fully functioning system and assumes consensus regarding mission and resource allocation to provide a comprehensive education for all students (p. 14). He has asked for a systemwide commitment to four

comprehensive educational goals: academic, social and civic, vocational, and personal (p. 15). Concerns are raised for curricula built around a large common core of studies and for preservice and inservice teacher training (pp. 15, 16). The healthy ecosystem functions to support individual schools.

Kerr (1987) advocated placing the authority and responsibility for education with teachers (p. 38). The mission of education is to initiate the learner into the ways of understanding and inquiry of the culture. Education as enculturation is basic to democracy and the right of all (pp. 24, 25). Kerr supported placing the authority for education in the hands of the teacher from three lines of reasoning: organization, the nature of education, and the nature of expertise (p. 29). Control, delegated to the level where services are delivered, assures that energy will be spent where mission is accomplished. Schooling conducted by hierarchical rules may not be designed to best meet the needs of individual students nor model intentionality regarding learning. Experts identify and frame indigenous problems which are worth solving and solvable; problems in the classroom cannot be identified and solved from above. Teachers are responsible to initiate students into the ways of knowing, for enabling each student to develop as an autonomous agent, and for extending the skills of citizenship. Kerr concluded that collectively we are capable of schooling that educates, but we can deliver on that capability only if we clean up our educational environment by getting straight who should have what authority and what responsibilities.

Sirotnik (1987) reconceptualized evaluation to be "an on-going part of the daily worklife of professionals involved in their own school improvement efforts" (p. 41). School renewal begins with rigorous self-examination conducted through a process of critical inquiry, which puts persons in charge of change which matters to them. He suggests that through evaluation as critical inquiry the practitioner engages in self-education, which becomes a source of renewal. He observed the following:

> The major implication, of course, is the eschewal of the top-down managerial model for running the educational enterprise as factories are run —a legacy of the industrial revolution that has survived in spite of failing the test of time. . . . Accountability must give way to responsibility, symbols (for example, test records) to meanings (for example, critical knowledge), short-term answers to long-term inquiry, closure to ambiguity, confirmation to exploration, authority to leadership, manipulation to facilitation, isolation to collaboration, and cost-benefit analysis to critical analysis. (p. 56)

In conclusion, Sirotnik dismissed "more of the same—more time, more homework, more courses, more testing, more standards, more accountability" and asked that educators be allowed to engage in the dialogue necessary for reconceptualizing and reconstructing schooling for the twenty-first century (p. 58).

Heckman (1987) proposed that change and improvement must focus on both substance and process. He proposes the concept of "culture" as more effective for dealing with renewal than the concept of "structure."

The idea that schools have cultures functions as an important heuristic in seeking change. Until Goodlad (1987) used this concept, many approached school change as a structural problem, identifying the malfunctioning structures and then seeking new structures as replacements for the faulty ones. According to Goodlad, "The developers of the new structures believed that schools would change and be better if schools adopted and implemented those structures. . . . [There was] little evidence that teachers wanted, let alone implemented, the proposed structures coming into the schools from the outside. In fact, classrooms changed very little" (pp. 65-66).

Changes do not come by working from the old paradigm that focuses on adopting specific structures or innovations: "Until the concepts underlying the innovations are incorporated into teachers' ways of viewing their world, little change in practices will occur" (Goodlad, 1987, p. 67). The concept of culture focuses on processes such as teachers working together to make their beliefs explicit, opening the school to new ideas, and the struggle of new and old concepts with each other. School cultures which are more renewing are indicated by principal leadership, staff cohesiveness, staff problem-solving processes, and adequate assistance. Through a process of inquiry, teachers and principals promote renewal as they solve problems together.

Lieberman and Rosenholtz (1987) believed that "the major barrier to school improvement is the school culture itself, but the bridge to its improvement and change is that very same culture" (p. 94). They promote school improvement as organizational change and the utilization of dualities to move beyond the current situation: standardization versus diversity, autonomy versus obligation, bureaucratization versus professionalization, management by control versus facilitation of professional norms, and mandatory versus voluntary change. New ideas will change a routinized culture only when the ideas elicit

commitment from the person(s) who must implement them: "Reform calls for structures that consider the social realities of teacher's lives, their understandings, their commitments, and their modes of learning" (p. 82). Building a more professional culture enables the development of more effective schools. Norms of equality, reciprocity, and colleagiality enable expanded roles for teachers. Larger networks support change across systems. Lieberman and Rosenholtz believed that "All need to be involved in reshaping, building and encouraging new structures that facilitate collaborative work, creating new roles that make shared leadership functions possible, and providing new incentives for meaningful involvement" (p. 95).

Williams, Moffett, and Newlin (1987) argued that history has changed the shape of school governance. The nature of leadership by the superintendent and the school board must change to meet the new realities. The primary goals of this new leadership must focus around (1) developing relevant staff skills, (2) building closer staff relationships, (3) developing organizational goals, and (4) assuring organizational commitment. The focus here is shifted from the usual administrative concern with larger structural variables toward a focus on people process variables which enable individuals to function effectively in their positions.

Henshaw, Wilson, and Morefield (1987) seem to have adopted both systems and organizational development theories. Their focus is on the school as the unit of change, with the persons in that school as primary agents of change who deal with the "personally significant level for pursuing change" (p. 135). They stated that change comes only to the extent that "the school is an open community, aware of its need to be itself educable through the development of new competencies and modes of thinking among all its members" (p. 136). Initiatives for change must be grounded on an understanding of change processes and on a clear vision of how the school maintains its equilibrium. The truly vital element in change is "the involvement people have with one another in developing, using, and modifying plans and goals" (p. 140). The primary reality is the classroom, with the multitude of classrooms forming the mosaic of school culture. They described a cultural nexus for change which emerges from the metaphors, concepts, and models available from the disciplines represented in the school. These enable "transdisciplinary thinking." The nexus includes sources of knowledge; values and goals of persons; learning, schooling, and teaching; and unifying objectives. Because each set of influences differs, each school is a highly individual, unique ecosystem—a self-conserving

organism. Conflict, problem solving, and dialogue become catalysts for change. Ingredients of change include ambivalence, deconstruction, interpretation, commitment, and confirmation (p. 149). The capacity to redefine and reconstruct a community is personal and individual; it involves changing the total Gestalt of each self, of society, of culture, of nature and body, and of ways of action.

Goodlad (1987) concluded his book by looking "Toward a Healthy Ecosystem." He assumed "a comprehensive system of schooling composed of policies, organizational and administrative structures, curricular arrangements, instructional practices, and a broad array of actors from students to legislators. The central thrust of improvement is not to eliminate the system but to eliminate the psychological aberrations causing the system to be dysfunctional" (p. 211). Goodlad contrasted the metaphors of the "ecological model" with the "factory-production model" of schooling: "The production-factory model justifies all means on the basis of their contribution to predetermined ends. . . . The ecological model justifies the functions it performs and the activities it promotes according to their inherent merit—their qualities of goodness" (p. 212). The text seems strangely parallel to the earlier concerns of John Dewey (1938) for "traditional" and "progressive" education.

Goodlad (1987) noted that if the school is of primary importance, the system may take on an instrumental rather than an essential significance. He dealt with this by defining the health of the school and the roles of the larger ecosystem. The healthy school is one which continually seeks to achieve its mission and for which dialogue, decision, and action are cultural regularities. Teachers must be empowered. The culture which they create must be attuned to the interests of their community (and state and nation), and the development of knowledge within their disciplines. This demands partnerships and collaboration. The roles of the university and the state (e.g., advocacy, resourcing, research, and development) are analyzed. He suggested that "Those persons seeking to implement significant educational change must be aware of their obligations to do this in a framework of research, inquiry, openness, and collaboration. . . . It is a time for selflessness and a willingness to forego those elements geared to enhance or protect any one group or governance level" (p. 221).

SUMMARY AND CONCLUSIONS

Can Elements of Excellence be Created or Developed?

Planned change is an organizational rather than an individual phenomenon. Schools are organizations. To implement planned change efforts, it may be important to consider the organizational context. Most critical is consideration for the particular structures, behaviors, meanings, and belief systems that have evolved in that school.

Meaningful change must involve the whole school: the leadership, a critical mass of the faculty, a safe and orderly environment, a sense of mission, and schoolwide assessment of student progress. As an overall approach to planned change at the organizational level, studies of organizational development may be extremely valuable.

Wayson et al. (1988) noted that despite the convincing evidence, attaining excellence is difficult within the current governance structure of public schools: "No formula exists to guarantee excellence; it is born of a persisting commitment to do well and to do well by others; it develops from a blend of inspired leadership, committed personnel, and adequate resources; it occurs as a result of initiative, perseverance, faith, and pluck" (p. 202).

Research Concerns for Excellence in Vocational Education

Rowan et al. (1983) reported that research on effective schools has the following problems:

1. Measures of effectiveness. Effectiveness is defined narrowly as instructional effectiveness and measured using standardized achievement tests. This yields measures which are invalid and unreliable.
2. Research designs. The research designs used have contrasted effective and ineffective schools. However, these have provided little information about the causal relationships among variables.
3. Global comparisons. Aggregated data describe the global characteristics of schools, ignoring the important variations in school organization and outcomes that occur within schools. The research has not tested models of school effects that explain how school level factors affect the process of teaching and learning that ultimately lead to increased achievement by students. (p. 25)

It can be concluded from examining the literature that current procedures for assessing school effectiveness lack face validity. The focus on the single dimension of basic skills outcomes has led to the development of indicators of school effectiveness that do not correspond to practitioners' subjective assessments of this construct such as the attainment of administrative, social, and emotional objectives.

Organizational effectiveness is a multidimensional construct—devoting scarce resources to improvement in one domain may lead to decreased effectiveness in other domains. Study should include how the attainment of instructional effectiveness is related to effectiveness in other domains.

Research has begun to focus on features of school organization and culture. Past research has paid insufficient attention to obtaining accurate estimates of the effects of school organization and climate on achievement. According to Rowan et al. (1983), most of the identified relationships between school-level factors and school achievement have highly uncertain temporal and causal orderings. Factors such as leadership, expectations, and effectiveness are related by a pattern of simultaneous causation that defies simple description. They concluded that it is unclear whether the relationships identified in past research can be applied to all types of schools.

Rowan et al. (1983) suggested that the analysis of school effectiveness should begin by looking at how the organization can facilitate what happens within classrooms. They noted that "fine-grained analyses" of the processes within schools are needed more than analyses of "global differences between schools." An analysis needs to be made of how school organization and culture affect classroom variables such as class size and composition, time-on-task, pacing and sequencing of instruction, grouping arrangements, and task characteristics—variables that have been found in previous research to affect student achievement. There is a need to study how school managers can organize interpersonal, support, and supervisory relationships that increase the effectiveness of differently organized classrooms.

The current research provides a poor model of how to assess school effectiveness, according to Rowan et al. (1983). Current research provides an uncertain basis for the design of school improvement programs. How can school-level structures be designed to

support effective instruction? Research needs to analyze how variations in school organization and management affect the processes of teaching and learning in classrooms.

The following obvious concerns are seldom addressed by research:

1. The failure of much of the reform literature to deal with secondary vocational education. What are the unique qualities of vocational education such as the sense of identity tied to productivity, and do these reach all students, including those not served by standard academic courses?

2. The student perspective. What will students say they gain by participating in vocational education? How do students perceive excellence? What degree of match is there between perceptions of student, teacher, and administrator regarding excellence?

3. Measurement of student outcomes beyond standardized test scores. Further research should examine the existence of relationships among students' development of skills, their positive self-image, and their resulting sense of satisfaction with their life roles (Copa et al., 1985, p. 22).

4. Most of the excellence literature is prescriptive. It serves only to validate primary processes assumed to be associated with excellence.

5. The search for and cultivation of institutional excellence. What factors differentiate excellence within public secondary education? What structural characteristics facilitate excellence? What makes schools work? How, by improving school structure, can results be enhanced? How are schools which produce excellence organized? What are their operating systems, their climate? How do larger structural variables facilitate excellence by the teacher in the classroom?

Questions for Research

- Will institutions of vocational education which show evidence of excellent performance capacities by learners also show evidence of excellent interpersonal and organizational processes by administration and faculty?

- Will these excellent performance capacities by learners transfer to the work setting? For example, will learners both perform their tasks better and function more effectively as participant employees?

- Will administration and faculty indicate higher levels of personal and professional satisfaction?

- What will characterize leadership? Will measures of climate be significantly different?

- Will these excellent institutions differ significantly from randomly selected institutions of vocational education on these identified variables?

- Can vocational education cultivate institutional excellence (characteristics or attributes and operation of exemplary institutions)? Are there dimensions which constitute institutional excellence? Are there precursors of institutional excellence? What factors are foundational to institutional excellence?

- Can organizational development concepts be used to identify excellent schools? Can organizational development theory be used to interpret data about the educational institution to provide a more adequate base for conceiving and planning programs and for the evaluation of those programs?

- Will excellent schools reflect processes desired as end products by organizational development, that is, will outcomes resulting from effective organizational development processes correlate with the outcomes desired for excellent schools?

- Will institutional excellence produce quality learning environments? How does the institution as an organization set the stage for the development of programs and

classrooms as learning environments, for classroom instruction, and for individual learner performance? How do school organization and management processes affect teaching and learning in the classroom? Can school-level structures be designed which support effective instruction, that is, larger structural changes beyond the classroom level? Do supervisory relations and interpersonal support shape educational processes and/or increase the effectiveness of differentially organized classrooms?

- Is the pattern of power in traditional school systems facilitative of indicators of excellence? Which patterns of power in vocational education associate with indicators of excellence? Under what conditions does power produce empowerment?

- If persons develop skills and take charge of problem solving in their setting, is their setting more likely to show the outcomes desired for excellent schools?

- Will patterns of effective organizational development techniques utilized by faculty be reflected in process patterns of the student body, that is, will democratic participatory processes by principals be reflected in the way teachers interact with the principal, other teachers, and students? Will patterns by teachers be reflected in the way learners interact with each other? Will this be transferred by learners into the workplace?

- Can constructs which have emerged from institutional behavior in industry be transferred to the educational setting? Will analyses of organizational development research provide more empowering and less coercive approaches to school effectiveness than school effectiveness literature?

CLOSING THOUGHTS

This review is part of a larger study investigating institutional excellence in vocational education. As such, it draws from the literature of vocational education, the educational excellence movement, and from organizational theory. In a search for excellence, a focus on the institutional level may provide better conceptions of quality instructional and learning environments, a sounder foundation from which to predict and support significant change and improvement, and an avenue of improvement by linking research in vocational education with other efforts to understand and improve institutional development.

Relatively little attention has been focused on excellence specifically related to vocational education. Likewise, little research focuses on the institutional level in all of the educational reform movement. Much of the research investigates specific components of the learning environment without a holistic view of the learner. This is interesting in light of the many suggestions by those stressing the need for educational reform that school should be the focus of reform.

There is a need for research which investigates what some programs such as vocational education, which are successful in creating holistic learning environments, can contribute to educational excellence. What can be learned about the importance of institutional structural variables from institutions with such programs?

Given the need for additional research regarding excellence in vocational education and for determining vocational education's contribution to institutional excellence, the next step necessary is the development of research strategies and methodologies. Previous research from the areas of educational excellence and organizational development can serve as a framework in this development process.

The search for the secrets or clues to achieving educational excellence can be likened to the process of putting together a jigsaw puzzle. The literature shows that while many pieces have been assembled, the excellence picture is far from complete. Research investigating excellence at the institutional level, including vocational education, may provide a framework for that puzzle.

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